TOWN OF WELLESLEY



MASSACHUSETTS

SUSTAINABLE ENERGY COMMITTEE

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DRAFT SEC Project Updates

April 5, 2019

The Transportation Working Group will meet next week to plan next steps. Ellen Gibbs and Ellen Korpi will attend a presentation at Harvard Kennedy School on the Future of Transportation in MA.

On April 4, Ellen, Marybeth and Phyllis Theermann of Wellesley Green Schools met with two students from Wellesley High School's Student Congress to discuss schools transportation and high school student parking to brainstorm and plan for a larger stakeholder meeting on school transportation.

Leanne Cowley completed cost and emissions comparison of internal combustion engines (ICE), Electric Vehicles (EV), and plug-in hybrid electric vehicles (PHEV) for the STEM Expo on April 6. Sustainable Wellesley will use this information at Wellesley STEM HVBheir exhibit The goal was to provide information that can be used by Scott Bender and others running the Expo for educational materials such as handouts and posters.

(I haven't had any feedback from Scott yet on how much of this he can use. I will bring copies of the spreadsheet to the meeting if you'd like.)

2. Working on research study of Climate Action Plans and emissions reductions plans in surrounding towns in the Boston metro area. I'm currently focusing on Natick, Dedham, Concord, Ipswich, and Cambridge. The list will expand. The goal is to complete an outline matrix and summary narratives by the next SEC meeting on May 3.

Sustainable Building Guidelines Working Group-

-Finalized SBG draft with FMD.

- Researched construction costs and efficiencies for sustainable and zero energy buildings.
- Prepared "road show" SBG powerpoint presentation

Building Code

- Encouraged SEC, BOS, Planning Board and Health Department to register with ICC to be able to participate in improving building energy codes in November 2019.

Conferences and Webinars

Fred participated in the following webinars:

NEEP Webinar Smart Energy Home 3/20/19

- Introduced NEEP report on smart energy products in homes and the need for smart meters and distributed energy resources: Webinar recording: https://neep.org/events/smart-energy-home-webinar-driving-residential-building-decarbonization

Report; https://neep.org/smart-energy-home-driving-residential-decarbonization.

New Building Institute (nbi) Webinar Zero Energy Schools 3/21/19

The nbi 2019 Zero Energy Schools watch list is available online. This webinar provided energy use intensity (EUI) targets by climate zone and cautioned that in high energy efficiency schools, plug loads can reach 50% of the total energy use. Very useful info on mostly California schools: https://gettingtozeroforum.org/zero-energy-schools

Excellent webinar presentation at:

https://newbuildings.org/wpcontent/uploads/2019/03/ToolsForGettingToZeroWebinar.pdf

NEEP Webinar Beyond the Walls of a High Performance School 3/25/19

- Introduced update to NE-CHPS v3.2, simplifying acoustic measures
- Reviewed Thunder Vista School (P-8, 540 students, 1000 capacity) in Adams, CO 130,603 sq.ft., \$306/sq.ft., EUI = 26.3, ZNE-ready

MCAN Legislative Action Webinar 3/26/19

- -Information on HB2810 a proposal for a carbon fee of \$20/ton CO2, raising to \$40/ton over 4 years. 70% of funds to go back to consumers, 20% to green infrastructure.
- H832 Clean & Thriving Commonwealth encouraging zero carbon by 2050 not the current GWSA 80% by 2050.
- Also encouraged fighting against H2863

You can add to the building code report that, through the efforts of MCAN and Sierra Club, 500 new voters were added in Massachusetts. Double previous.

Green Communities

Marybeth Martello is seeking out ways to use the \$61,000 available from Wellesley's Green Communities Designation. She announced a call for projects at the March department head meeting, and has so far identified a Wellesley Municipal Light Plant (WMLP) light-emitting diode (LED) Flood Light Project (\$21,345) and expects the Department of Public Works (DPW) to have an LED project costing \$15,000-20,000 and a building insulation project. Janet reviewed the WMLP's narrativeEllen Korpi and Marybeth will be speaking with the Council on Aging about electric vehicle possibilities in later April.

Electricity Emissions Factor

At the January 30th SEC meeting, SEC members approved the suggestion by Marybeth, Janet Mosley, and Katy Gibson to switch the source of Wellesley's electricity emissions factor from eGRID to ISO-New England. Based on revised data sent by Dick Joyce of the WMLP, Janet has updated the calculations of a WMLP-specific emissions factor, which the SEC may consider adopting in some form at the same time that the SEC reviews and revises other GHG inventory methods.

Greenhouse Gas Emissions Inventory

Janet and Marybeth completed greenhouse gas (GHG) inventory data collection for 2018 from the municipal, college, residential, and commercial sectors by early February. In the first half of February Janet and Marybeth completed all the inventory calculations and data entry into ICLEI software. Results reflect the ISO-NE electricity emissions factor, updated 2017 and 2018 road categorization and traffic counts for community transportation (thanks to work by Leanne Cowley), and revised 2017 Babson College energy use values. Janet and Marybeth compiled, reviewed, and analyzed results and contacted data providers about large increases in commercial and municipal waste disposal, water department propane use, and changes in

college natural gas and fuel oil use. The 2019 Annual Town Meeting Report includes a discussion of the 2018 GHG inventory results.

WMLP Solar Rebate Program

Laura, Marybeth, Stephanie Hawkinson and WMLP staff are starting to develop the residential solar campaign. Marybeth, Stephanie and Dave Allen are meeting on March 6 to have further discussions about marketing. A reminder about program details appears below:

- Residential customers who install solar will be able to receive a rebate of \$1.20 per watt/hour installed up to 25 kWh. Half will be a rebate from the state and half from the MLP. (The Wellesley MLP may tailor requirements as noted below).
- MLPs can cap the rebate as low as 10 kWh or \$1,200.
- While the MLPs are required to match the state rebate of \$.60, one for one, some may elect to increase their match to up to a \$1.
- Only \$2.3 million has been allocated to the program but MLPs have pledged \$3.3 million. Therefore, MLPs are unlikely to receive the full amount for which they applied, although there is some talk of adding another \$700,000 thousand to the pot.
- The MLPs will be required to retire the RECs associated with this program
- The Feb 1 program introduction has been delayed due to some legal hitch but will hopefully launch sometime in February.
- Energy New England has engaged a Marketing Company to assist the MLPs in its Janet consulted with Katy and Marybeth in furthering analysis of electricity emissions factor options. Janet, Katy and Marybeth met with the WMLP on January 22 to discuss these options.

Sustainable Building Guidelines

On March 8, Fred Bunger and Marybeth met with Steve Gagosian to discuss revisions to Sustainable Building Guidelines (SBG). Marybeth has incorporated Steve's latest comments. Fred updated the SBG Summary Page and prepared a spreadsheet of Zero Net Energy buildings with information on size, cost, energy use intensity (EUI), solar capability and references. Fred also reviewed LEED, CHPS, WELL, Living Building Challenge and Passive house standards and certification requirements for potential inclusion in SBG. After one more iteration with Steve, SBG will be ready for presentation to departments, boards and committees. Marybeth and Fred

are awaiting publication of a US Green Building Council report on Zero Net Energy buildings. It was due to be available in mid-February.

Fred participated in Northeast Energy Efficiency Partnerships (NEEP) webinar on Home Energy Labeling Information eXchange (HELIX). The HELIX program encourages realtors to be involved in home efficiency and environmental standards. It builds on the Energy Star rating, the HERS rating required by MA and other states, and includes elements of WELL for indoor air quality.

Hunnewell School Feasibility Study

On February 14, Tom Ulfelder, Fred and Marybeth attended a meeting on the Hunnewell School Feasibility Study with the SMMA and Compass teams, and the Facilities Management Department (FMD). SMMA presented on sustainability aspects of the project and the SEC had the opportunity to make comments and ask questions.

Marybeth attended the School Building Committee meeting on February 27. Solar coverage, building orientation, plug loads, and certification programs were among the sustainability topics discussed.

Upham/Hardy School Project

The SEC was asked to review and provide comments on the Upham/Hardy Designer Request for Services by Monday, March 4.

Board of Building Regulations and Standards (BBRS)

Fred attended a BBRS meeting to understand the current status of Building Code and Stretch Code updates. DOER presented recommendations on the Stretch Code. Fred talked to Michael Grant about the Wellesley team that votes on code updates. Wellesley has one team of four voting members: Michael Grant, Joe McDonough, Marybeth Martello and Fred Bunger. Wellesley could increase its voice in the voting by adding two more teams, but neither Joe nor Michael were interested in increasing the number of teams.

Transportation Working Group

On March 1, Ellen Korpi and and Ellen Gibbs will ride the Route 1 bus with a member of the MetroWest Regional Transit Authority (MWRTA) management.

Home Energy Savings Seminars

Fred Bunger conducted a Home Energy Savings Seminar on February 6th. Eight people attended. Fred will hold seminars every two months going forward.

Greenhouse Gas Emissions Reduction Plan

While some students at the University of Michigan expressed interest in the SEC's master's project proposal for School for Environment and Sustainability (SEAS) students to develop an emissions reduction plan for Wellesley, ultimately our project proposal was not selected. We did, however, receive a list of interested students and their contact information in case we would like to reach out to them to offer an internship.